



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/744,096	03/05/2000	Bernhard Schick	98/07226 WO US	3039
30996	7590	08/25/2004		
ROBERT W. BECKER & ASSOCIATES 707 HIGHWAY 66 EAST SUITE B TIJERAS, NM 87059			EXAMINER WOO, STELLA L	
			ART UNIT	PAPER NUMBER
			2643	

DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/744,096	Applicant(s) SCHICK, BERNHARD	
	Examiner Stella L. Woo	Art Unit 2643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>July 30, 2004</u> . | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
6) <input type="checkbox"/> Other: _____. |
|--|---|

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see page 6, third paragraph, filed June 1, 2004, with respect to the rejection of claims 13-24 based on Plugge et al. (US 6,356,185 B1) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground of rejection is made in view of Miller (US 5,237,617).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 13-16, 21-25, 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Miller (US 5,237,617).

Regarding claims 13, 25, Miller discloses a method including the steps of:

detecting fluctuations in pressure in the fresh air stream supplied to the engine (analyzer 11 detects intake air fluctuations via a sensor placed at the engine manifolds; col. 2, lines 14-20; col. 3, lines 35-38, 48-50);

converting said fluctuations into signals (digital synthesizer 32 receive signals from analyzer 11 to produce digital output signals which, when converted to analog signals, emulate the sounds of the engine and exhaust of a high-performance vehicle; col. 4, lines 8-25);

Art Unit: 2643

making said signals audible via at least one speaker disposed in said interior vehicle space (the analog signals are amplified and output to loudspeakers 52 and 53 of the automobile stereo system; col. 4, line 58 – col. 5, line 3).

Regarding claims 14-16, 28, Miller discloses an apparatus (Figure 1) comprising:

a pressure sensor for detecting fluctuations in pressure in a fresh air stream to said engine (detector 23 is connected to a vacuum line of the vehicle engine to detect vacuum pulsations at the manifold; col. 2, lines 14-20; col. 3, lines 35-38, 48-50);

an amplification device (amplifiers 47 and 48; col. 4, lines 61-64); and

at least one speaker disposed in said interior vehicle space (loudspeakers 52 and 53 of the automobile stereo system; col. 4, line 58 – col. 5, line 3).

Regarding claims 21-22, Miller provides a modulation device (personality module 38 is programmed to emulate the engine sounds of a particular vehicle type; col. 4, lines 9-57).

Regarding claim 23, the detection of vacuum sensor signals takes into account the number of cylinders (col. 2, lines 26-32).

Regarding claim 24, the vacuum line detector 23 is positioned so that it does not block line 54, yet generates signals indicative of the vacuum pulsations (col. 5, lines 11-18).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 17, 26-27, 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller.

The apparatus of Miller differs from claims 17, 26-27, 29-30 in that it does not specify that the vacuum sensor is a piezoelectric element sensitive for a frequency range of from 1 Hz to 10 kHz. However, Applicant admits the well known use of a piezoelectric sensor within automobiles which is sensitive for a broad frequency range, such as from 1 Hz to 10 kHz (see page 4, lines 11-16). It would have been obvious to an artisan of ordinary skill to use a well-known, commercially available pressure sensor which detects a broad frequency range, as taught in Applicant's specification, as the vacuum pressure sensor 23 of Miller for detecting a broad range of air fluctuations in the engine's intake manifold.

Regarding claims 31-32, Miller provides for a filter (col. 4, lines 36-38) and a modulator (personality module 38 is programmed to emulate the engine sounds of a particular vehicle type; col. 4, lines 9-57).

6. Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller in view of Kwang (US 5,384,855).

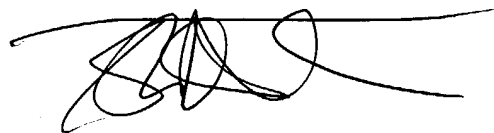
The apparatus of Miller differs from claims 18-20 in that it does not specify a filter device which attenuates frequencies over 300 Hz and below 30 Hz. However, Kwang teaches the desirability of attenuating frequencies lower than 40 Hz and those higher than 300 Hz in a vehicular audio system (col. 1, lines 43-50; via selectors 52 and 53 of Figure 1A) in order to eliminate resonances within the vehicle such that it would have been obvious to an artisan of ordinary skill to incorporate an audio filter, as taught by Kwang, within the apparatus of Miller in order to effect a pleasant audio experience within the vehicular cabin.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stella L. Woo whose telephone number is (703) 305-4395. The examiner can normally be reached on Monday-Tuesday, Thursday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on (703) 305-4708. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to be 'Stella L. Woo', written over a horizontal line.

Stella L. Woo
Primary Examiner
Art Unit 2643